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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/620,697	07/17/2003	Kunihiko Hayashi	67471-020	9304

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MCDERMOTT, WILL & EMERY
600 13th Street, N.W.
Washington, DC 20005-3096

EXAMINER

TANG, KENNETH

ART UNIT	PAPER NUMBER
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2195

MAIL DATE	DELIVERY MODE
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01/25/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/620,697	Applicant(s) HAYASHI, KUNIIHIKO	
	Examiner Kenneth Tang	Art Unit 2195	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 8-9 and 11 is/are rejected.
- 7) ☒ Claim(s) 2-7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is in response to the Amendment on 11/8/07. Applicant's arguments have been fully considered but were not found to be persuasive.
2. Claims 1-9 and 11 are presented for examination.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claims 1 and 8, 9, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Inagaki et al. (hereinafter Inagaki) (US 6,324,562 B1) in view of Koning (US 6,895,583 B1).**

4. As to claim 1, Inagaki teaches a program execution apparatus that determines an execution sequence of tasks and executes the tasks according to the execution sequence, each task being given a target completion time before which execution of the task is to be completed, the program execution apparatus comprising:

a storing unit operable to store at least one task identifier (program name) of at least one task that is already in existence (col. 6, lines 14-20), at a memory position therein determined based upon a plurality of types of priorities set for the task, the plurality of types of priorities

having a hierarchical relationship (first discriminating portion and then a second discrimination portion, for example, taking out order and the priority are the priority types, etc.) (col. 2, lines 25-60, col. 11, lines 1-7, col. 7, lines 55-58);

a receiving unit operable to receive an identifier of a new task and a plurality of types of priorities set for the new task (CPU 21 obtains task information) (col. 6, lines 33-38);

a writing unit operable to write the identifier received by the receiving unit, at a memory position in the storing unit determined based upon the plurality of types of priorities received by the receiving unit (registering the task information in the task management table) (col. 7, lines 23-34 and 55-58); and

a determining unit operable to determine an execution sequence of the tasks whose identifiers are stored in the storing unit, according to an arrangement sequence of the identifiers in the storing unit (col. 3, lines 13-21 and 40-50), wherein

at least a first-type priority and a second-type priority are set for each task as the plurality of types of priorities, the second-type priority being lower in hierarchy than the first-type priority (col. 8, lines 7-25, col. 2, lines 25-60),

the storing unit stores a plurality of groups each including identifiers of tasks for which a same value is set as a first-type priority (first discriminating portion, priority), the plurality of groups being arranged at memory positions in the storing unit in an arrangement sequence determined in an order of the value of a first-type priority set for each group, the identifiers of the tasks in each group being arranged at memory positions in each group in the storing unit in

an arrangement sequence determined based upon a second-type priority set (second discriminating portion, taking out order, etc.) for each task in the group (col. 3, lines 13-21 and 40-50, Fig. 8),

the receiving unit receives the identifier of the new task, and a value of a first-type priority and a value of a second-type priority that are set for the new task (col. 6, lines 33-38, Fig. 8-9, col. 11, lines 37-49),

the writing unit writes the received identifier, at the memory position in the storing unit determined based upon the received value of the second-type priority in a group including identifiers of tasks for which a first-type priority that is the same as the received value of the first-type priority is set (col. 7, lines 23-34 and 55-58, Fig. 8), and

the determining unit determines the execution sequence of the tasks whose identifiers are stored in the storing unit, according to the arrangement sequence of the identifiers in the storing unit determined based upon a first-type priority and a second-type priority set for each task (col. 3, lines 13-21 and 40-50, Fig. 8).

5. Inagaki is silent in that the task information consists of a task identifier.

6. However, Koning discloses that each task contain a task control block (TCB) which holds task information such as task ID number, priority, and many other task information that one of ordinary skill in the art would know (col. 5, lines 6-20).

7. Inagaki (see Abstract) and Koning (see Abstract) are analogous art because they are both in the same field of endeavor of task management.

8. One of ordinary skill in the art would have known to modify Inagaki such that it would include the features taught of a TCB that holds task information such as the task ID number, etc.

9. The suggestion/motivation would have been to provide the predicted result of faster context switching as well as an increased speed in execution, as well as to provide information that may be needed by tasks during execution, as taught in Koning (see last sentence of Abstract, col. 2, lines 31-34).

10. Therefore, it would have been obvious to one of ordinary skill in the art to combine Inagaki and Koning to obtain the invention of claim 1.

11. As to claim 8, it is rejected for the same reasons as stated in the rejection of claim 1.

12. As to claim 9, it is rejected for the same reasons as stated in the rejection of claim 1.

13. As to claim 11, it is rejected for the same reasons as stated in the rejection of claim 1.

The limitation of the system being a mobile telephone is not given any patentable weight due to it being in the preamble.

Allowable Subject Matter

14. Claims 2-7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

15. *Applicant argues on pages 14-15 of the Remarks that the references of Hooman and Chauvel do not teach the newly amended claim limitations.*

16. As a result of the claim amendments, new grounds of rejections were made. Applicant is directed to the new grounds of rejections made above.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

- Bronte (US 6,061,709) discloses a task execution system that uses hierarchical priorities, with a task control block (TCB) that contains information related to the task.
- Kobayashi et al. (US 2001/0027463 A1) discloses a task priority decision and process deadline determining apparatus that contains a task information extracting unit and a task information storage unit ([0065]-[0066]).

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Art Unit: 2195

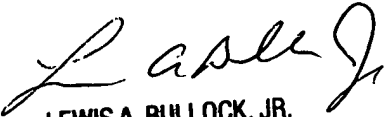
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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kenneth Tang whose telephone number is (571) 272-3772. The examiner can normally be reached on 8:30AM - 6:00PM, Every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571) 272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Kt
8/5/07


LEWIS A. BULLOCK, JR.
PRIMARY EXAMINER